



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,524	02/05/2004	Jeffrey Lloyd	60130-2011;04MRA0100	5397

26096 7590 11/19/2004
CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,524

Applicant(s)

LLOYD, JEFFREY

Examiner

Devon C Kramer

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10, 12 and 14 is/are rejected.
- 7) ☒ Claim(s) 8, 11 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/5/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION***Drawings***

1) The drawings are objected to under 37 CFR 1.83(a) because they fail to show the ports 48 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

- 2) The disclosure is objected to because of the following informalities:

Page 3 paragraph 15 line 4, "a piston airbag outer surface 40" should be --a piston airbag outer surface 49--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 4) Claims 1-5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Stuart (6386525).

In re claim 1, Stuart provides an air spring assembly comprising: a piston (13), a piston airbag (9) mounted to the piston; and a primary airbag (7) mounted adjacent the piston airbag such that at least a portion of the primary air bag contacts the piston airbag.

In re claim 2, Stuart provides an arrangement where the piston airbag defines a first volume (8) and the primary airbag defines a second volume (10); a change in pressure within the piston airbag changes a diameter of the piston airbag.

In re claims 3-5, please note that it is inherent that a change in diameter of one airbag would affect the spring rate of the other airbag.

Art Unit: 3683

In re claim 9, Stuart teaches a mount on the piston and an outer piston. Please note that the position of the outer piston is not claimed, therefor the examiner is calling any portion of the piston an outer piston.

Claim Rejections - 35 USC § 103

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6) Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuart (6386525) in view of Luhmann et al (6536749).

In re claim 6, Stuart teaches a single band (18) that holds the piston airbag to the piston, but lacks the teaching of a second band.

Luhmann et al teaches the use of a first and second band (28, 30) to attach an airbag to a structure.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the single band of Stuart with a second band as taught by Luhmann to ensure air doesn't leak from the device and to ensure operation of the spring if one band should break.

In re claim 7, Stuart teaches a band created from the interaction of the mating surface of the two airbags that retains the airbags together (see 14-16).

Art Unit: 3683

7) Claims 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffiths (6604734) in view of Stuart (6386525).

In re claim 10, Griffiths teaches an air suspension system for a vehicle having a frame member (22), the system further comprising: a longitudinal member (14) extending generally lengthways of the vehicle frame member and mountable to the vehicle for pivotable movement about an axis generally transverse to the frame member; and an air spring (16). Griffiths lacks the specific air bag arrangement claimed.

Stuart teaches the claimed air bag arrangement, see the 102 rejection above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the airbag of Griffiths with the air bag of Stuart to provide an air spring with a variable spring rate.

8) Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuart (6386525).

In re claims 12 and 14, Stuart teaches the method comprising: mounting a primary airbag (7) adjacent a piston airbag (9), one of the air bags having a selectively changeable volume; wherein a pressure change with one airbag volume changes the spring rate of the airbag. Stuart lacks the teaching of selectively changing the volume of the piston airbag and the primary airbag.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the airbags of Stuart with selectively changeable volumes since it has been held that the provision of adjustability, where needed, involves only

Art Unit: 3683

routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954). Please note that this gives the operator greater control over a vehicles ride.

Allowable Subject Matter

9) Claims 8, 11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hackett, Namito et al, Branco et al, Warmuth et al, Korosladanyi et al, Slemmons et al, McGavern et al, and Behmenburg et al all provide airbags with similar features to the instant application.

11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK

Don
11/15/04